

## CLAIMS

What is claimed is:

1. An integrated communications system comprising:  
  
an integrated packet-based network infrastructure operable to provide networked converged communications;  
  
an information management platform operable to support handling of orders, initiating services provisioning, maintaining service quality, billing, and administration; and  
  
an activation engine operable to provide end-to-end services provisioning.
2. The system of claim 1, wherein the integrated packet-based network infrastructure replaces a traditional circuit switched network.
3. The system of claim 2, wherein the integrated packet-based network infrastructure is operable to provide networked converged communications to commercial users.
4. The system of claim 1, wherein the integrated network infrastructure comprises:

a transport layer operable to transport data signals;

a routing and switching layer operable to provide routing and switching of network traffic transported by the transport layer;

a connectivity layer operable to provide end-user converged communications services.

5. The system of claim 4, wherein the connectivity layer is operable to provide end-user converged communications services to commercial user locations.
6. The system of claim 4, wherein the transport layer is based on wavelength division multiplexing and synchronous optical network technology and comprises redundant path protected fiber links.
7. The system of claim 6, wherein the fiber link extends from a super point of presence to at least one central office and at least one commercial customer premise.
8. The system of claim 4, wherein the routing and switching layer comprises Internet protocol over asynchronous transfer mode.

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9. The system of claim 8, wherein the routing and switching layer further comprises a packet-based infrastructure combining multiple services over a single network media.
10. The system of claim 8, wherein the end-user communications services comprise at least one of:  
  
converged services with frame relay services, voice over Internet protocol with local and long distance calling capabilities, Internet access, and videoconferencing.
11. The system of claim 10, wherein the converged services comprise a value added services layer operable to provide web hosting, storage, managed network services, and messaging services.
12. The system of claim 8, wherein the routing and switching layer is further operable to provide multi-protocol label switching.
13. The system of claim 12, wherein the routing and switching layer is further operable to provide virtual private network capabilities.

14. The system of claim 12, wherein the routing and switching layer is further operable to provide a capability for any end-user to communicate with any other end-user independently of geographic location.
15. The system of claim 12, wherein the routing and switching layer further operable to provide virtual private network capabilities across multiple networks, including the Internet.
16. The system of claim 12, wherein the end-user communications services comprise at least one of:  
  
converged services with frame relay services, voice over Internet protocol with local and long distance calling capabilities, Internet access, and videoconferencing.
17. The system of claim 16, wherein the converged services comprise a value added services layer operable to provide web hosting, storage, managed network services, and unified messaging service.

18. The system of claim 1, further comprising an integrated access device located at a customer premise.
19. The system of claim 18, wherein the integrated access device is operable to provide a channel associate signaling interface.
20. The system of claim 18, wherein the integrated access device comprises analog and digital voice interfaces.
21. The system of claim 18, wherein the integrated access device comprises serial data ports and at least one network Ethernet port.
22. The system of claim 18, wherein the integrated access device is operable to provide a primary rate voice interface.
23. The system of claim 18, wherein the integrated access device encompasses routing and firewall functionality.
24. The system of claim 18, wherein the trunk interface comprises at least one of T1, multiple T1s, DS3, and OCn capabilities.

25. The system of claim 1, wherein the information management platform is further operable to provide customer on-network access to billing, usage, and performance information.
26. The system of claim 1, further comprising a super point of presence where the Information Management Platform allows customer on-net access to billing, usage and performance information.
27. The system of claim 1, further comprising a super point of presence where the Information Management Platform allows the management of information including ordering, provisioning, maintaining and billing of services.
28. The system of claim 1, further comprising a super point of presence where the activation engine executes the provisioning of services initiated by the information management platform.

29. The system of claim 1, further comprising a super point of presence operable to provide commercial customers with hosting facilities supporting value added services.

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